William D. Ivancic

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Professional Experience

- Principal of Syzygy Engineering, Westlake, Ohio, 1996 – Present

  o   Specializes in Communication and Networking Technology and Security
  o   Networking Training

- NASA Lewis/Glenn Research Center, Space Communications / Electronics Division, Cleveland, Ohio, 1982 – Present (http://roland.grc.nasa.gov/~ivancic)

  o   Senior Research Engineer for Communication Networking, 1996 – Present
  o   Senior Electronics Engineer for Communication Systems, 1988 – 1996, Electronics Engineer for Digital Systems, 1982 – 1988

Significant Contributions

- Principal Investigator for deployment of Identity-based for secure mobile networking for the Navy Space and Naval Warfare Systems Command (*SPAWAR*).

- 1st to deploy delay/disruption network technology bundling protocol in space – January 2008.

- 1st to deploy Internet Protocol security (IPsec) and Internet Protocol version 6 (IPv6) on a space-base asset – March 2007

- 1st to deploy Mobile-IP Mobile networking on a space-based asset, the Cisco router in Low Earth Orbit (CLEO) – April 2004. Principal Investigator for design, development, and experimentation of a currently deployed Cisco space-based router in Low-Earth Orbit (CLEO) and Virtual Mission Operation Center (VMOC) technology development. Partners included: Universal Space Networks, General Dynamics, Air Force and Army Battle Labs, Western DataCom, Cisco System, Surrey Satellite Technology Limited, and the Office of Secretary of Defense.

- 1st to demonstrate and deploy secure mobile networks in an operational government network – November 2002. Designed and demonstrated secure IPv4 mobile network that was deployed in and operational setting for the US Coast Guard. This technology is currently being deployed in theater.

Publications and Awards (Recent)

Full list of papers available at: http://roland.grc.nasa.gov/~ivancic/papers_presentations/papers.html

- William Ivancic: "Security Analysis of DTN Architecture and Bundle Protocol Specification for Space-Based Networks" 2010 IEEE Aerospace Conference, Big Sky Montana, March 6 - 13, 2010

- William Ivancic, Lloyd Wood, Wesley M. Eddy, Dave Stewart, Chris Jackson, James Northam, Alex da Silva Curiel: "Delay/Disruption-Tolerant Network Testing Using a LEO Satellite," Paper A4P2, NASA Earth Science Technology Conference, June 24-26, 2008

- William Ivancic, Dave Stewart, Lloyd Wood,Chris Jackson, James Northam, James Wilhelm : "IPv6 and IPSec Tests of a Space-Based Asset, the Cisco router in Low Earth Orbit (CLEO)," NASA/TM.2008-215203, May 2008

- 2006 NASA Exceptional Achievement Award for pioneering research n secure mobile networking technologies

- 2003 NorTech Innovation award for Mobile Network Technology

Education

- MSEE, Cleveland State University, Ohio, 1986
- BSEE, Cleveland State University, Ohio, 1982